

## STATEMENT OF BASIS for LNG Plant Station 240

### TITLE V OPERATING PERMIT RENEWAL AND SIGNIFICANT MODIFICATION

Program Interest (PI): 02626 / Permit Activity Number: BOP140001

#### I. FACILITY INFORMATION

LNG Plant Station 240 is located at 718 Patterson Plank Rd., Carlstadt, Bergen County, NJ 07072 and consists of Liquefied Natural Gas (LNG) Compression Plant. The facility is owned and operated by Transcontinental Gas Pipeline Company LLC.

The facility is classified as a major facility based on its potential to emit 192 tons per year of Nitrogen Oxides (NO<sub>x</sub>) to the atmosphere.

This permit allows individual hazardous air pollutants to be emitted at a rate to not exceed 4.96 tons per year of formaldehyde and 1350 pounds per year of acrolein.

#### II. AREA ATTAINMENT CLASSIFICATION

The Federal Clean Air Act (CAA) sets National Ambient Air Quality Standards (NAAQS) for six common air pollutants. These commonly found air pollutants (also known as "criteria pollutants") are particulate matter, ground-level ozone, carbon monoxide (CO), sulfur dioxide (SO<sub>2</sub>), nitrogen dioxide (NO<sub>2</sub>), and lead. The US Environmental Protection Agency (USEPA) also classifies areas as "attainment" or "nonattainment" for each criteria pollutant, based on the magnitude of an area's problem. Nonattainment classifications are used to specify what air pollution reduction measures an area must adopt, and when the area must reach attainment. Currently, the entire State of New Jersey is designated as nonattainment for the 8-hour ozone NAAQS. New Jersey is designated attainment for all other pollutants. For nonattainment classification refer to <http://www3.epa.gov/airquality/greenbook/multipol.html>

#### III. BACKGROUND AND HISTORY

The equipment that emits air contaminants from this facility include: Stationary Internal Combustion Engines, Heaters, Boiler, Condensate Storage Tank, Emergency Flare and Emergency Fire Pump, and control devices include Selective Non-Catalytic Reduction (SNCR).

Table 1 - Operating Permit Revision History (located at the end of this document) provides a summary of all the changes that have been incorporated into the operating permit through seven-day notice changes, administrative amendments, minor modifications, or significant modifications since the approval of the initial operating permit or the most recent renewal thereof. Please refer to the attached explanation sheet for the structure and configuration of conditions of approval, included in the Facility Specific Requirements section of this permit.

The Department's review of the health risk assessment conducted for HAPs at this facility is negligible in accordance with Technical Manual 1003.

The operating permit renewal also includes a significant modification that would allow the following:

1. The Semi-Annual Periodic Monitoring of CO and NO<sub>x</sub> was scheduled to begin on June 30, 2019 for the U4, U5 and U6 engines, since the engines are scheduled to be replaced by June 30, 2020.

There are no proposed changes to air contaminant allowable emission rates.

#### IV. CASE-BY-CASE DETERMINATIONS

The periodic emission monitoring requirements for the existing U4, U5 and U6 engines differ from the presumptive norm agreements that NJDEP and USEPA Region 2 have for RICE engines of this size. The presumptive norm for an engine of this size requires periodic emission monitoring semi-annually for CO and NO<sub>x</sub>. The facility is currently scheduled to undergo a liquefaction modernization project that includes replacement of these engines. Based on the facility's plan to replace these engines, the periodic emission testing start date was revised to begin on June 30, 2019, if the new replacement engines are not installed and in operation by that time. Applicable requirements were added to the operating permit to begin testing of these engines on June 30, 2019, and to cease operation of these engines by June 30, 2020.

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#### V. EMISSION OFFSET REQUIREMENTS

This modification is not subject to Emission Offset requirements.

#### VI. BASIS FOR MONITORING AND RECORDKEEPING REQUIREMENTS

The facility's operating permit includes monitoring, recordkeeping and reporting requirements that are sufficient to demonstrate the facility's continued compliance with the applicable requirements consistent with the following:

1. Provisions to implement the testing and monitoring requirements of N.J.A.C. 7:27-22.18, the recordkeeping and reporting requirements of N.J.A.C. 7:27-22.19, and all emissions monitoring and analysis procedures or compliance assurance methods required under the applicable requirements, including any procedures and methods promulgated pursuant to 40 CFR 64; and
2. Where the applicable requirement does not require direct periodic monitoring of emissions, the Department requires periodic monitoring of surrogate parameters sufficient to yield reliable data from the relevant time period that are representative of the facility's compliance with the permit. Such monitoring requirements include monitoring of fuel consumption, sulfur content in the fuel, continuous flare monitor for the emergency flare, and operating hours.
3. In situations where the underlying applicable requirement did not specify any periodic testing or monitoring, the following factors were considered in the evaluation and determination of the appropriate methodology for compliance demonstration for each emission unit:
  - Pollutant's potential impact on public health and environment.
  - Emission unit and control device (older, less reliable equipment generally require more monitoring to ensure ongoing compliance).
  - Compliance history and margin of compliance.
  - Emissions variability and process stability (emissions units with highly variable process rates or materials generally require more monitoring to ensure ongoing compliance)
  - Quantity of emissions (emissions units that will have more impact on the environment generally require more monitoring to ensure ongoing compliance).

#### VII. APPLICABLE STATE AND FEDERAL RULES

The facility is subject to New Jersey Air Pollution Control Regulations, codified in N.J.A.C. 7:27-1 through 34, as applicable. A complete text of these regulations is available at:

<http://www.nj.gov/dep/aqm/rules27.html>

The facility is subject to Federal regulations listed below.

NSPS Subpart A:	General Provisions
NSPS Subpart Dc:	Small Boilers
NSPS Subpart IIII:	Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
NSPS Subpart JJJJ:	Standards of Performance for Stationary Spark Ignition Internal Combustion Engines
MACT Subpart A:	General Provisions
MACT Subpart ZZZZ:	Stationary Reciprocating Internal Combustion Engines

The Greenhouse Gas (GHG) emissions from this facility are 34,106 TPY CO<sub>2</sub>e and there is no GHG emissions increase.

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#### **VIII. FACILITY'S COMPLIANCE STATUS**

The Responsible Official at the facility has certified that the facility currently meets all applicable requirements of the Federal Clean Air Act and the New Jersey Air Pollution Control Act. Based on this certification, the Department's evaluation of the information included in the facility's application, and a review of the facility's compliance status, the Department has concluded that this air pollution control operating permit should be approved.

This operating permit includes a permit shield, pursuant to the provisions of N.J.A.C. 7:27-22.17. A permit shield provides that compliance with the relevant conditions of the operating permit shall be deemed compliance with the specific applicable requirements that are in effect on the date of issuance of the draft operating permit, and which form the basis for the conditions in the operating permit.

Also, prior to the expiration of the five-year period, the facility will be required to apply for a renewal of this operating permit, at which time the Department will evaluate the facility and issue a public notice with its findings.

#### **IX. EXEMPT ACTIVITIES**

The facility's operating permit does not include exempt activities such as office and interior maintenance activities, maintenance shop activities, food preparation facilities, cafeterias and dining rooms, etc. A complete list of exempt activities, as allowed by the Operating Permit rule, can be found at N.J.A.C. 7:27-22.1.

Table 1 - Operating Permit Revision History

Permit Activity Number	Type of Revision	Description of Revision	Final Action Date
BOP160001	Minor Modification	<p>Deletion of the existing 2.5 MMBtu/hr natural gas-fired Glycol Heater and replace with a new 2.44 MMBtu/hr natural gas-fired heater (E11, U11, PT11).</p> <p>Change of the Responsible Official from Michael Callegari to Kenny Jacobs, Manager, Environmental Health and Safety.</p>	11/14/2016

FACILITY NAME (FACILITY ID NUMBER)

BOP050001

Activity Number  
(assigned by the  
Department)

# New Jersey Department of Environmental Protection Facility Specific Requirements

Emission unit number  
(assigned by the  
facility)

Brief description of emission unit

Emission Unit: U1 25 MM BTU/hour Boiler burning Fuel Oil and Natural Gas  
Operating Scenario: OS Summary OR OSXX Boiler burning Fuel Oil

OS Summary lists all rules and requirements that apply to an emission unit, regardless of operating scenarios. Emission unit may contain one or more pieces of equipment and the corresponding operating scenarios

OSXX denotes the operating scenario number and lists the rules and requirements that apply to a particular scenario. An operating scenario represents various ways (or scenarios) a piece of equipment can operate.

Records to be kept

Submittal  
requirement

Item  
Number

Description of applicable  
requirement

Air contaminants

Monitoring method to  
ensure compliance

Actions to be  
taken by the  
facility

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Conduct a comprehensive stack test at emission point PTXX at least 18 months prior to the expiration of the approved operating permit to demonstrate compliance with the <u>CO, NOx, TSP and VOC emission limits</u> . [N.J.A.C. 7:27-22.16(e)]	Other: <u>Stack emission testing</u> . Stack test shall be conducted for CO, NOx, TSP, and VOC emissions (add language as needed). Based on any 60-minute period. [N.J.A.C. 7:27-22.16(e)]	Other: <u>Stack test results</u> . [N.J.A.C. 7:27-22.16(e)]	Stack Test - <u>Submit a protocol, conduct stack tests, submit results per the approved schedule. Submit a stack test protocol to the Emission Measurement Section</u> at PO Box 437, Trenton, NJ 08625 at least 30 months prior to the expiration of the approved operating permit. [N.J.A.C. 7:27-22.18(e)] and [N.J.A.C. 7:27-22.18(h)]

Rule citation (subchapter, section, and paragraph) for the applicable requirement

Rule citation for the monitoring requirement

Rule citation for the recordkeeping requirement

Rule citations for the submittal/action requirement